



PROACTIVE NAVAL FORCE PROTECTION

Applying the Non-Lethal Dimension

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The Dilemma

“Tourist or Terrorist “

- Destruction of the threat is not the problem
- Ability to engage is not the problem

Target Discrimination is the problem



Findings and Recommendations

Downing Report (*Khobar Towers Jun 96*)

- Employ integrated *detection* systems, sensors, etc.
- Employ explosive detection and countermeasure systems
- Physically *harden* structures
- Develop guidance on stand-off distances and *blast walls*
- *Relocate and consolidate* units at more secure bases
- *Reinforce* entry control points and provide defense in depth
- Cable single rows of Jersey *barriers* together
- Use enhanced *barriers*
- Establish threat-based stand-off distances/exclusion areas
- Procure personal *protective* equipment

Although worthwhile, these measures are generally passive and defensive oriented. None enhance the ability to discriminate at the time of crisis.



Findings and Recommendations

Cole Commission Report (USS Cole Oct 00)

- The attack on USS COLE *demonstrated a seam* in the fabric of efforts to protect our forces
- We must *get out of the purely defensive mode* by proactively applying AT/FP techniques
- The report recommended that SECDEF direct:
 - Services to ...*develop new technologies* for remaining requirements
 - CINCs and Services to have Component Commanders *identify proactive techniques* and assets to deter terrorists
 - CJCS to continually update training tools



Findings and Recommendations

SECNAV AT/FP Task Force (Oct 00 – Jan 01)

As AT/FP progresses to its endstate, this defense in depth *concept will extend to many more dimensions*. A cornerstonewill be the *innovative application of lethal and non-lethal technologies*.



Factors Contributing to the Dilemma

- Reactive Posture
- Limited Reaction Time
- Limited Options
 - Present options are preventative in nature
 - Active only during prep phase; reactive during engagement phase
 - Present options are binary--- lethally engaged or not
 - “Bullhorn or Bullet”
 - No means to discriminate in order to determine target’s intention



Current Concept

Lethal Force...strictly binary

Available Actions

**Use Lethal
Force**

**No active
engagement**

**Not a Hostile
Threat**

**Hostile
& Threat**

**International
Incident**

**Defeat Prior
To Hostile Act**

**No Action Taken
Or
Required/Desired**

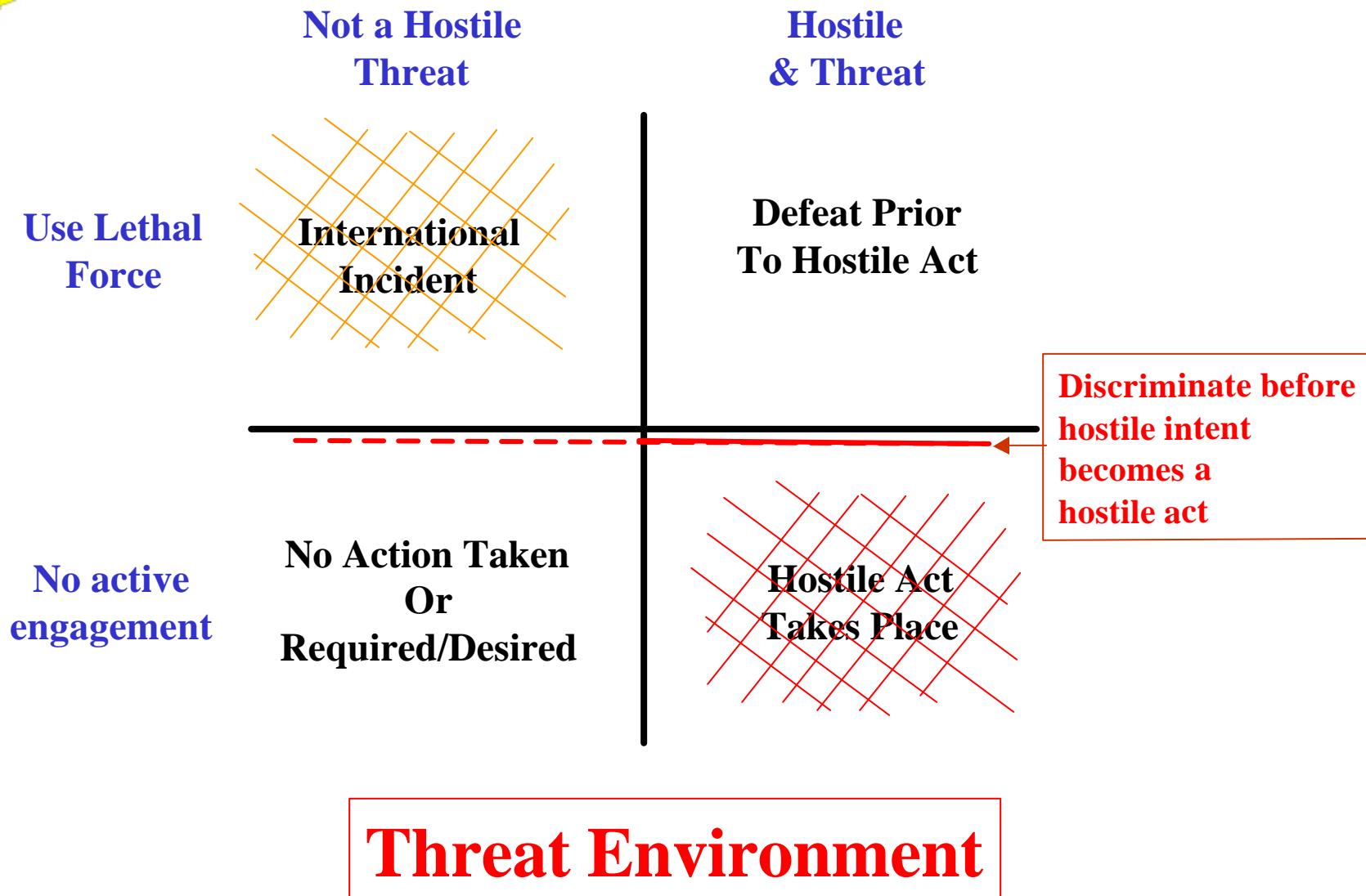
**Hostile Act
Takes Place**

Threat Environment



Applying the Non-Lethal Dimension

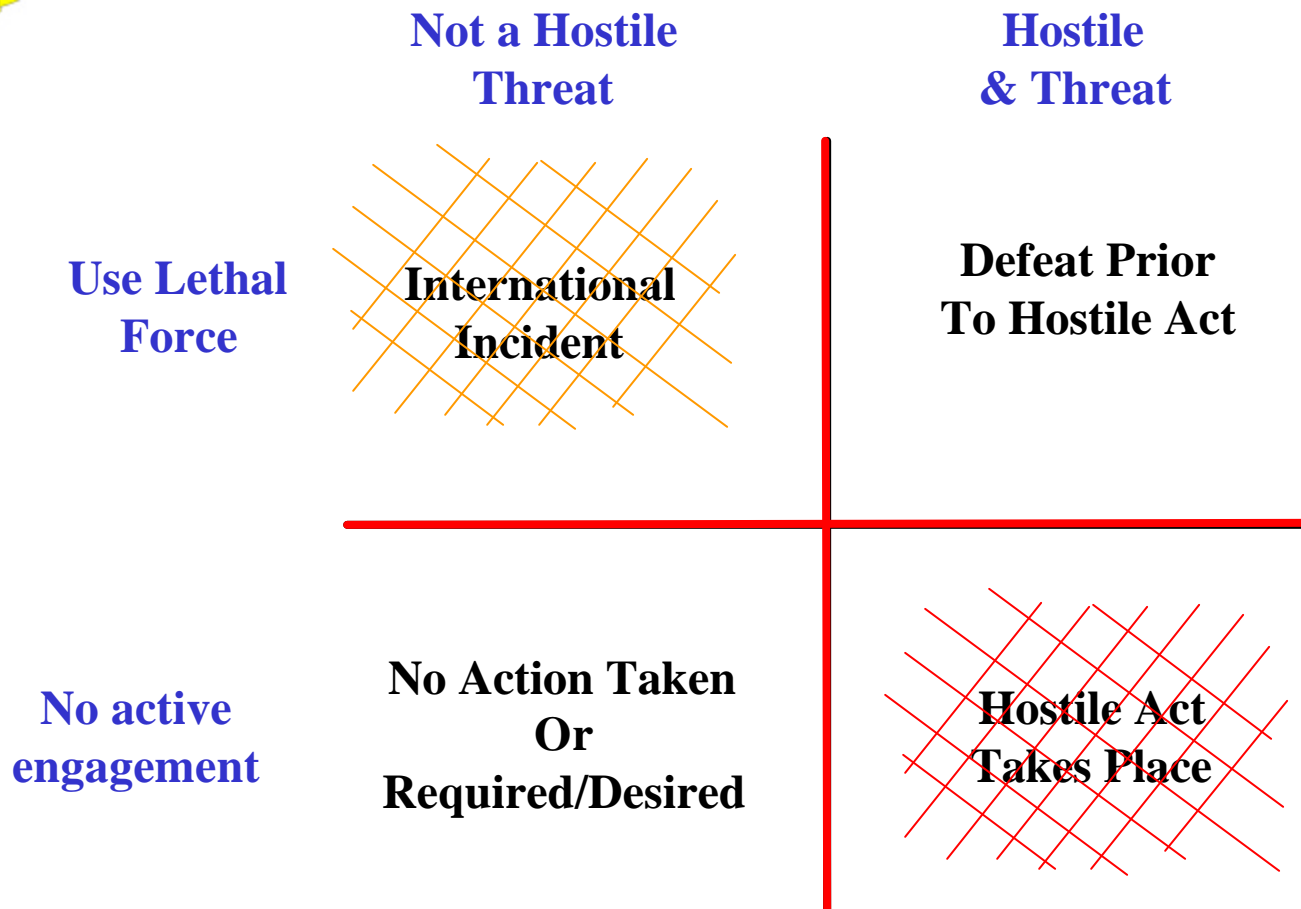
Available Actions





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Available Actions

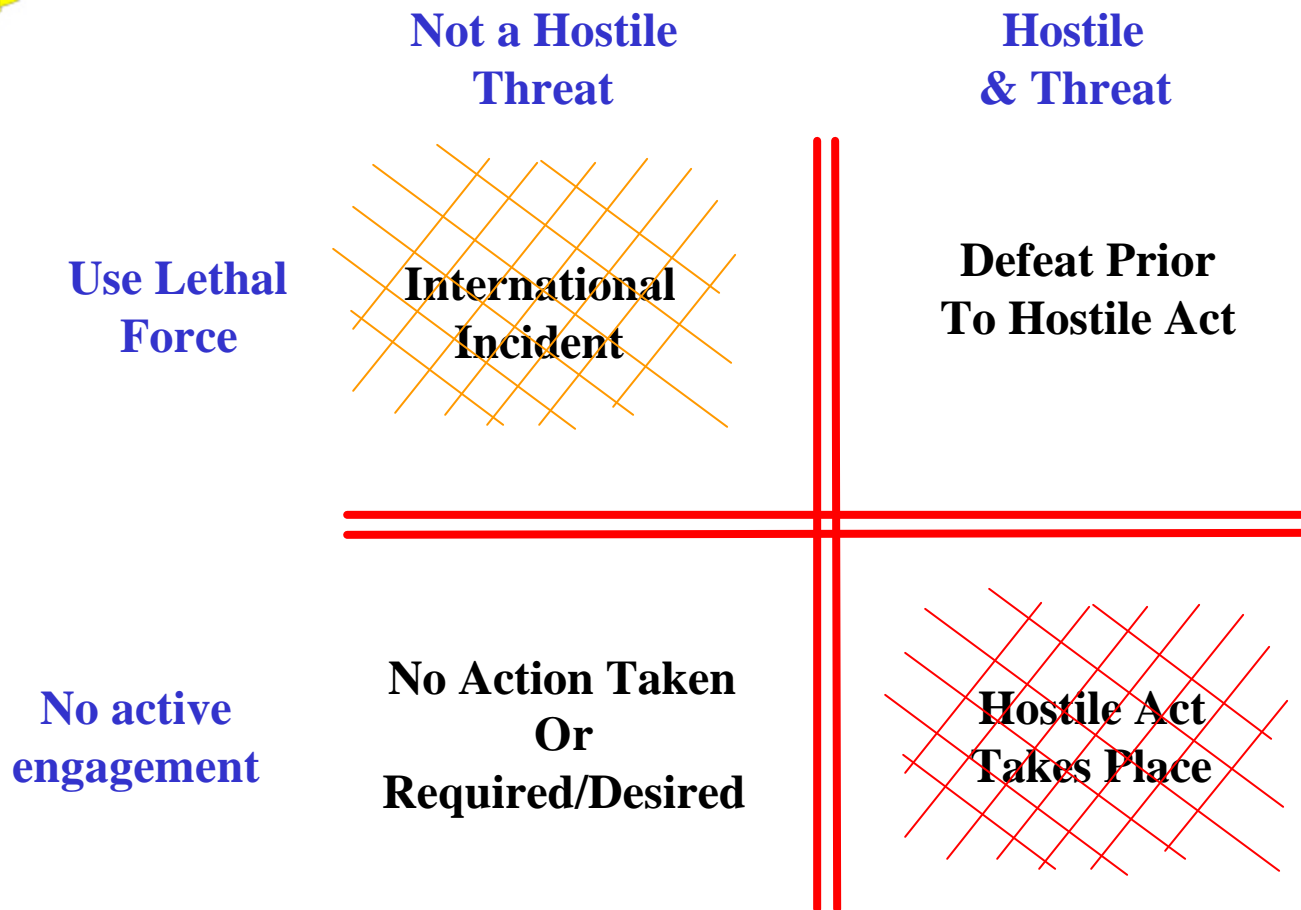


Threat Environment



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Available Actions

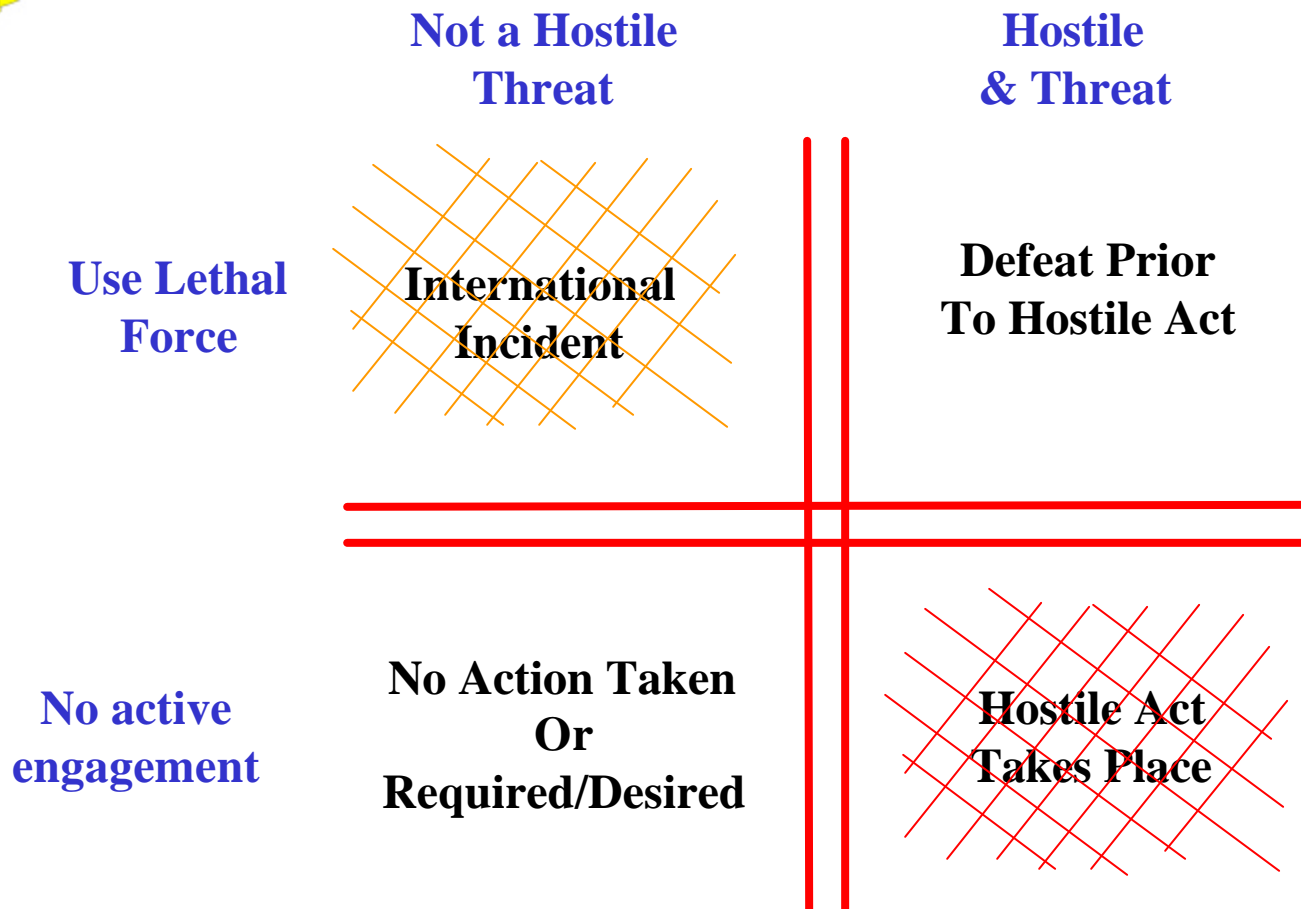


Threat Environment



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Available Actions

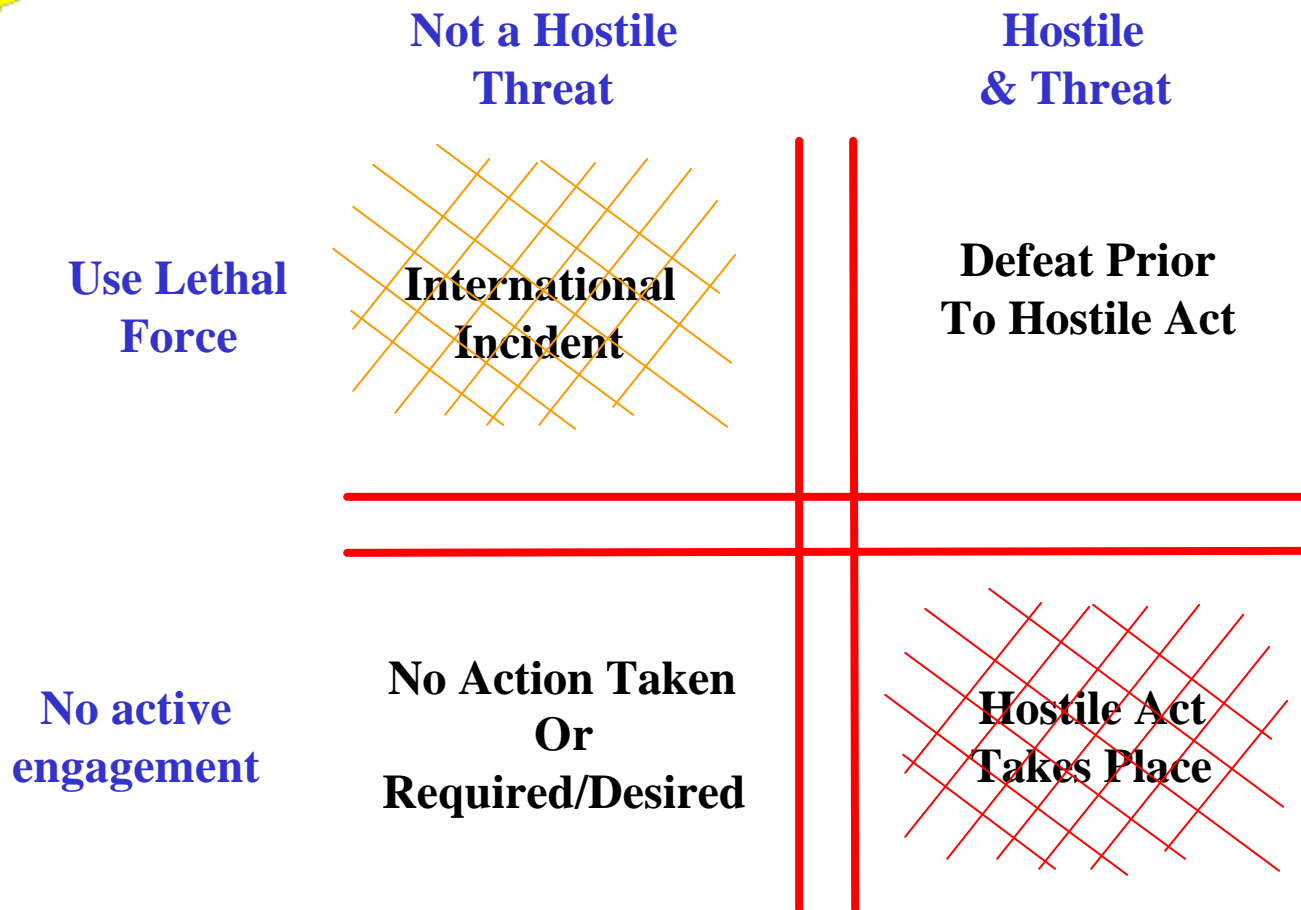


Threat Environment



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Available Actions



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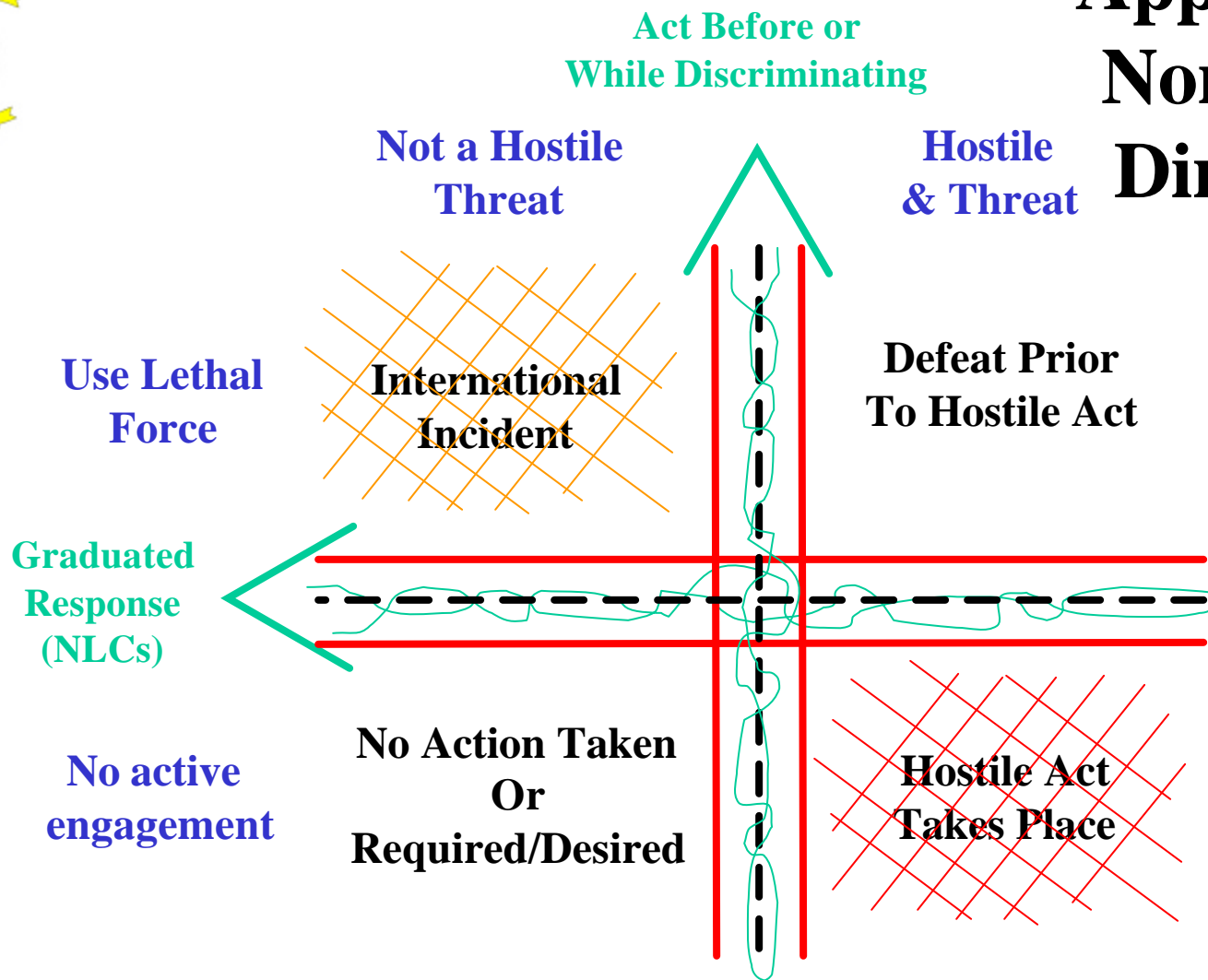
	Not a Hostile Threat	Hostile & Threat
Use Lethal Force	International Incident	Defeat Prior To Hostile Act
No active engagement	No Action Taken Or Required/Desired	Hostile Act Takes Place

Threat Environment



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Available Actions

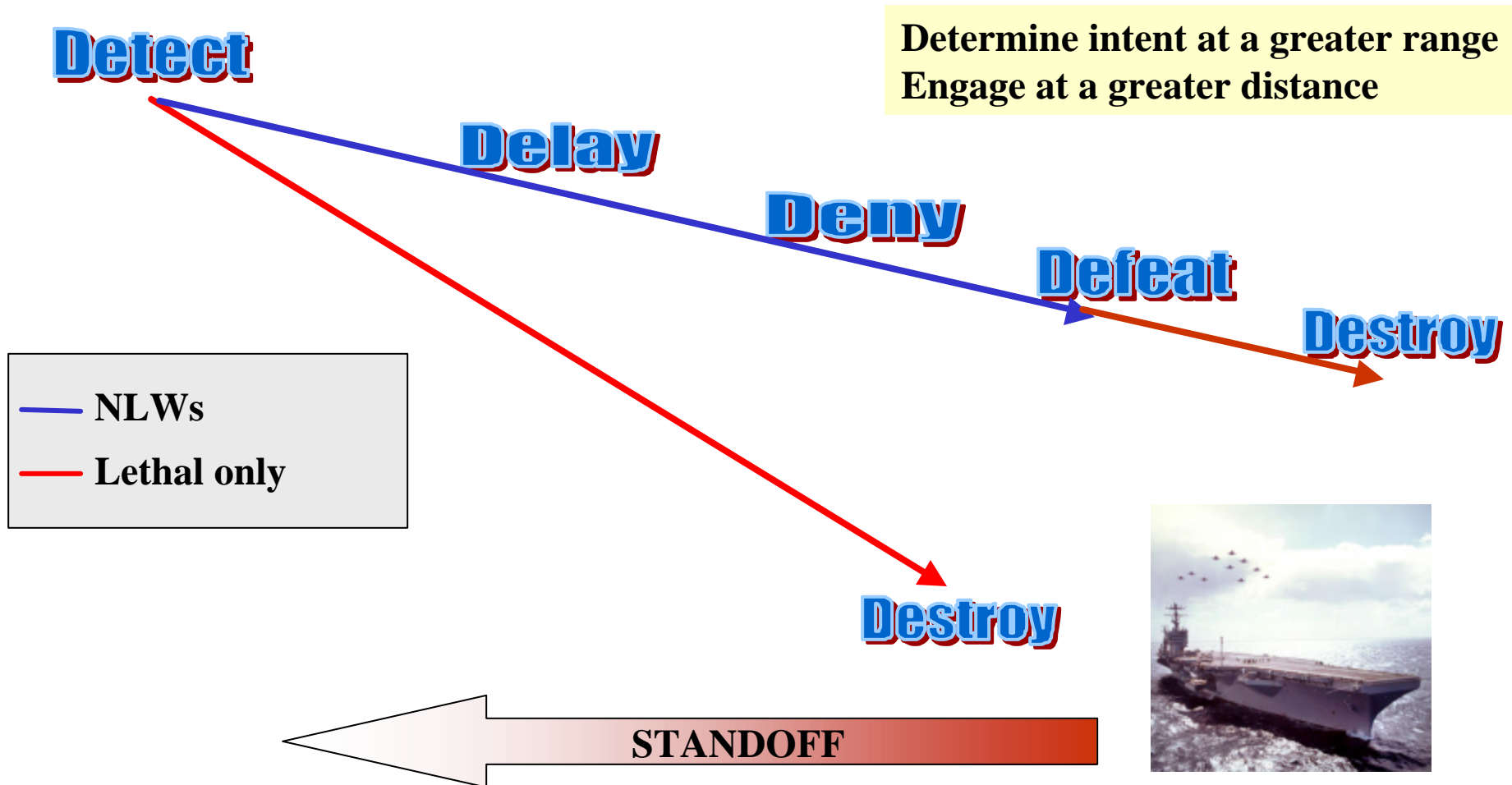


Threat Environment



Increasing the Engagement Space and Engagement Time

Non-Lethals facilitate discrimination

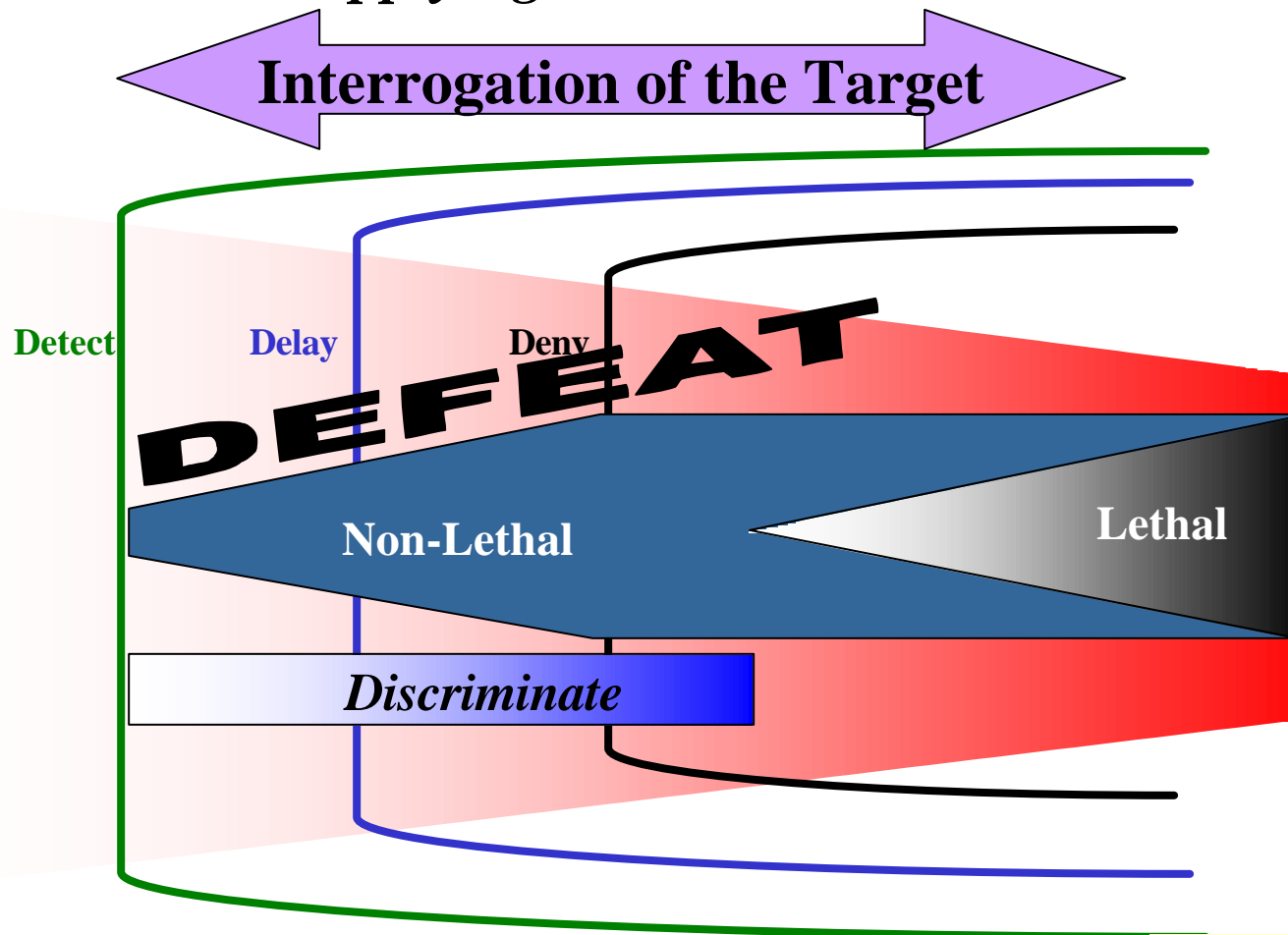




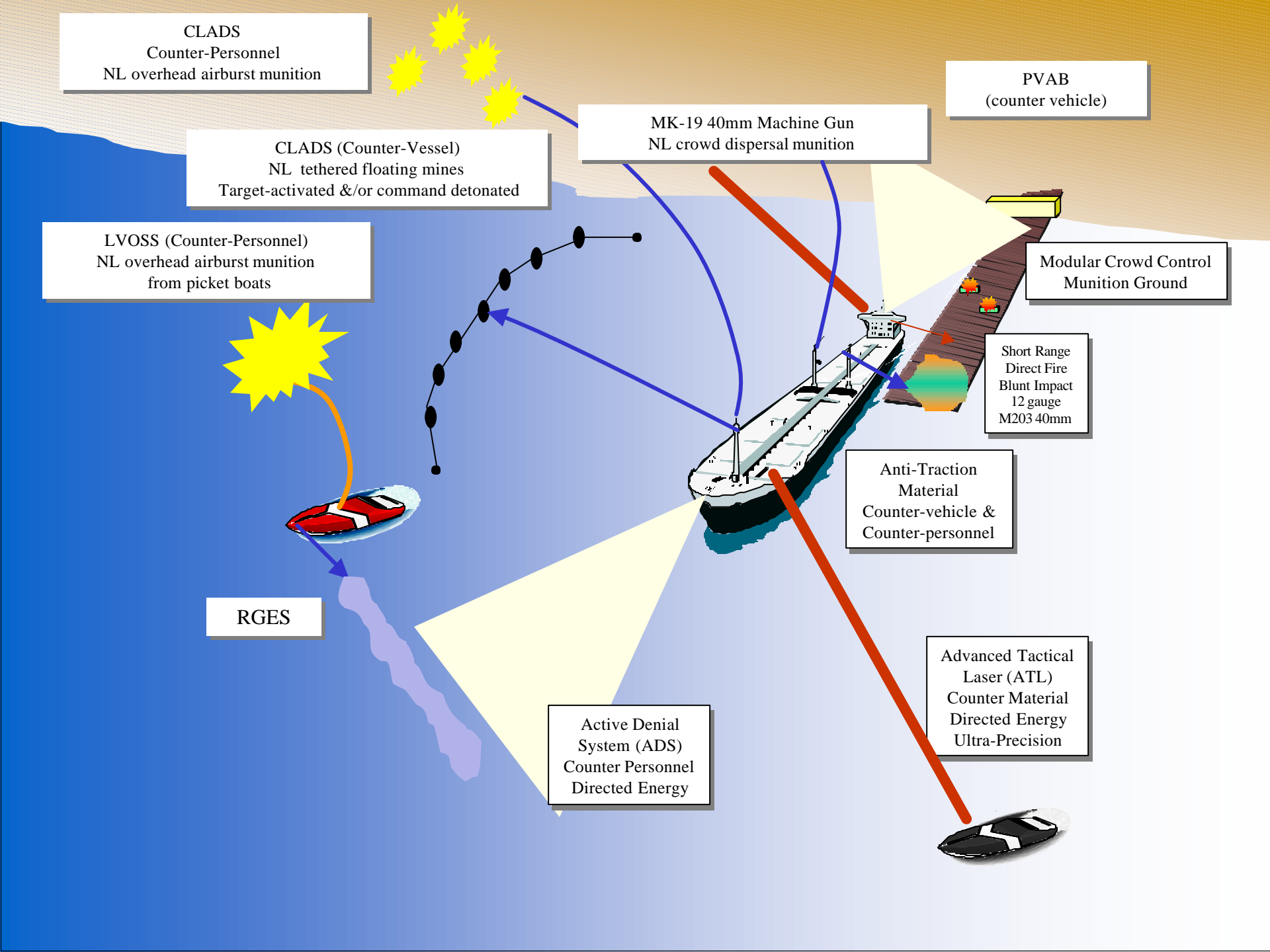
FORCE PROTECTION

The D-5 Concept

Applying the Non-Lethal Dimension



Engagement envelope
- time
- space





Naval Non-Lethal Capabilities Points of Contact

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BACK-UPS



Active Denial System (ADS)

- **Low power testing underway**
- **Human testing under approved protocol**
- **Key Test Objectives:**
 - Technical: Operational power, spot size, and range
 - Operational: Effectiveness; Utility

ACTD RECENTLY APPROVED
CINC Sponsor: JFCOM
Ops Mgr: ACC



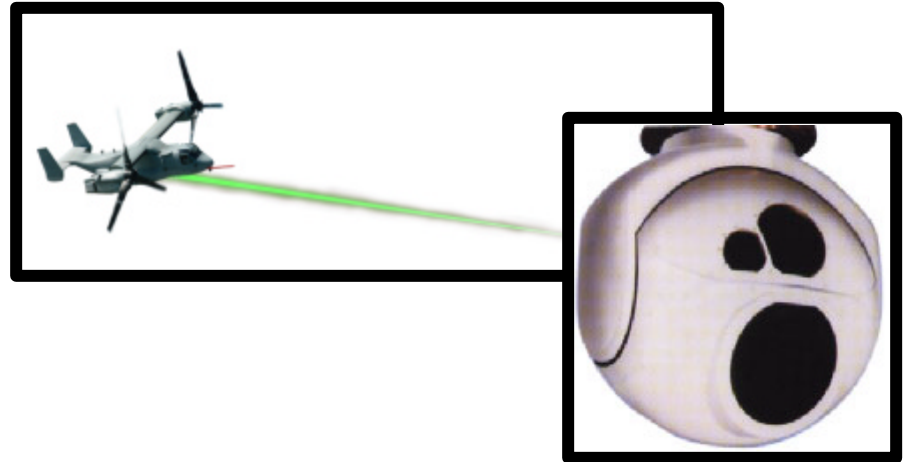
Demonstration Unit at Test-Site: Feb 01



Artist Concept of HumVee System



Advanced Tactical Laser (ATL)



Under this concept, an aircraft equipped with a Chemical Oxygen Iodine Laser (COIL) system could engage materiel targets at extended ranges with ultra high precision.



Pulsed Energy Projectile (PEP)



The object of the PEP program is to develop and demonstrate the technology necessary to produce a crew served, counter personnel non-lethal directed energy weapon providing controllable bio-effects to deter, disable, and distract individuals. The device directs an *invisible induced plasma pulse at a target that will create a flash-bang near the intended target*



Running Gear Entanglement System (RGES)



The RGES is the second element of the Navy-led Vessel Stopper System (VSS) effort to create non-lethal vessel stopping capabilities. RGES is specifically targeted at planning hull or *go-fast* boats. It is essentially a rope device that floats in the water ahead of the target vessel. As the vessel runs over it, the rope becomes entangled around propeller/rudder.



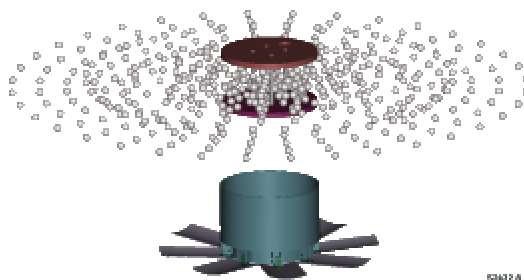
Light Vehicle Obscurant & Smoke System (LVOSS)

The LVOSS is a self-defense smoke / obscurant device externally mounted on the host vehicle. The LVOSS is made of lightweight materials. The LVOSS has a push button Arming / Firing Unit (A/FU) which allows the operator to select the direction he needs obscured.

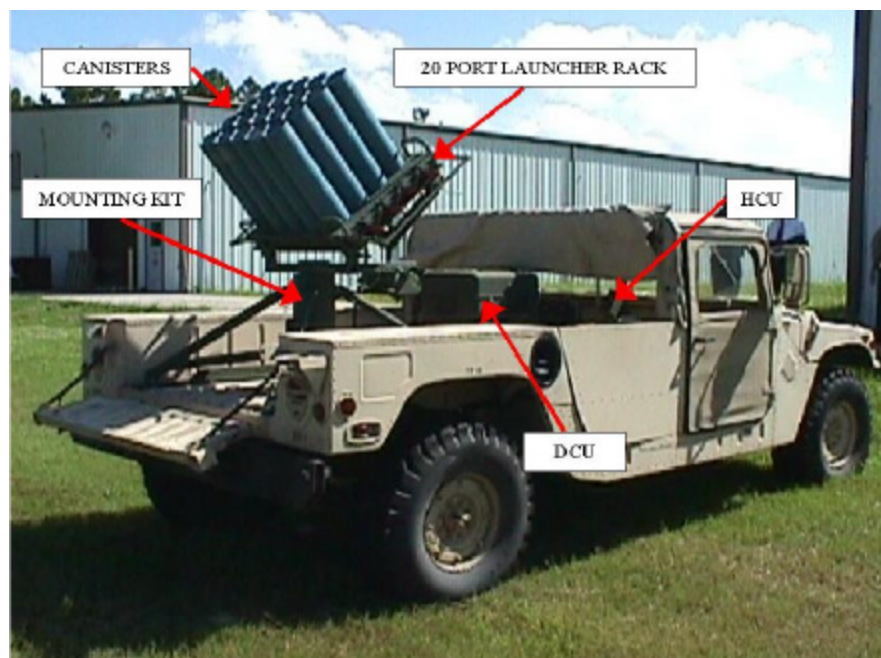




Canister-Launched Area Denial System (CLADS)



ICM17.0



Concept of Operations:

Rapidly deploy target-activated non-lethal payloads out to nearly 100meters to deny, delay, and disrupt hostile factions from contacting US forces.

Description:

- Deploy Non-Lethal Payloads from a HMMWV
- 20 Port Volcano-like Dispenser
- Dispense rubber ball payload that provide sting and flash bang effect
- Submunition effective range from 5-15 meters



Portable Vehicle Arresting Barrier

The Portable Vehicle Arresting Barrier (PVAB) is designed to capture and safely stop a vehicle (>7500 lbs) traveling up to 45 mph, with minimal damage to the vehicle and its occupants. It is portable and easily installed or emplaced at vehicle entry points to Command Posts or Key Facilities.

